

Appendix

Written Submissions By Public Meeting Participants

Environmental Research Beyond 2000

November 20, 1997

HARRIS MILLER MILLER & HANSON INC.

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FAA PUBLIC FORUM: ENVIRONMENTAL RESEARCH 2000 NOVEMBER 20, 1997 COMMENTS OF HARRIS MILLER MILLER & HANSON INC.

My name is Mary Ellen Eagan; I am a Senior Consultant at Harris Miller Miller & Hanson Inc. My comments today reflect the interests of HMMH's Aviation Services Group, which provides noise consulting to airports throughout the U.S. and abroad.

In dealing with noise problems at more than 100 airports over the past 16 years, we have observed a number of issues that are raised frequently. My comments today suggest areas for research that address some of the most common concerns: Day-Night Average Sound Levels below 65 dB, changes in noise exposure, and supplemental noise metrics.



Day-Night Average Sound Levels (DNL) below 65 dB.

We work at many airports that experience serious noise complaints below DNL 65 dB. These are airports, for example, where dense residential neighborhoods are located in lower exposure areas, but residents are active in complaining to the airports and in trying to find some way they can receive relief. While 65 dB represents the FAA-recommended threshold of incompatibility with residential land use, it certainly does not limit the extent of potential noise problems: the "updated Schultz curve" reported in FICON's 1992 *Federal Agency Review of Selected Airport Noise Issues* still indicates 12 to 13 percent of the population will be highly annoyed at these levels. Yet little research has been conducted to understand the nature of noise problems at lower levels, whether they be in rural areas with very low ambient noise levels, or urban or suburban neighborhoods, where exposure levels as low as 50 dB continue to produce material opposition to aircraft noise. *As noise environments around airports clearly get quieter with conversion to a Stage 3 fleet, FAA should seek to better understand the relationship between lower noise levels and human or community response, and develop mechanisms for predicting those responses.*

Changes in Noise Level

Many of our projects deal with changes in noise exposure: a new airport, such as Denver International; runway expansion, as at Minneapolis-St. Paul; or airspace changes, such as in New Jersey after the implementation of the Expanded East Coast Plan. Yet little research has been done to quantify the amount of change that is significant: is a 3 dB change in DNL noticeable or not? Isn't there some degree of increase that represents "significant impact" by NEPA standards, even when the exposure remains below 65 dB? FICON asserts that changes of 3 dB at noise levels greater than DNL 60 dB are significant, but the research supporting this recommendation is not conclusive. Also, more and more communities are questioning the equal energy hypothesis at low exposure levels. In FICAN's public forum presentations, NASA points out that "a 10 dB reduction in aircraft noise relative to 1992 technology will allow an increase in number of operations (capacity) by over 500% without increasing community impact". Almost no one believes such statements, and we are concerned that such tradeoffs between noise levels and numbers of events are not supportable by current research. *More research is needed to understand the nature of human response to changes in exposure -- both increases and decreases -- as well as criteria that should be used to identify when changes are significant.*

Supplemental Metrics

HMMH believes that energy-based metrics (and in particular, Day-Night Average Sound Levels, DNL) are the best predictors of long term community annoyance. Nevertheless, many groups feel that more intuitive metrics, such as Time Above, are better suited to addressing their particular noise situations, and indeed, FAA often encourages the use of such supplemental metrics as part of routine noise analyses. As analysts, we can provide data describing noise environments in terms of these metrics, but there is limited guidance as to the significance of the reported levels, or changes in levels. We are pleased that FICAN has recently published a position paper on percent awakenings from sleep based on indoor Sound Exposure Level. *But, if FAA is going to continue to recommend, and even require, supplemental noise metrics such as TA, more research on the accuracy and significance of predicted values, the relationships between TA and community response, and the significance of changes in those values, is needed, as well as criteria for defining impact.*



Finally, more research is needed on the following topics:

- ▶ Tubojet airplanes weighing less than 75,000 pounds are exempt from the Stage 2 Phase-out required by FAR Part 91. As a result, at many of our client airports, general aviation aircraft now dominate the noise environment. Research is needed to understand the long term implications of continued operation of noisier Stage 2 business jets.
- ▶ Low-frequency noise from start of takeoff roll or maintenance runups poses problems for a number of airports. More research is needed to understand the nature of low-frequency aircraft noise, human response to such noise, and possible mitigation. Criteria for impacts and mitigation should be developed. Effective sound insulation treatments have been designed but are quite expensive; more work is needed to identify potential cost-effective treatments.
- ▶ Research should be conducted to determine whether human response correlates to single event noise metrics, such as the Sound Exposure Level (SEL), or Maximum Sound Level (L_{max}). If so, criteria might be developed based on levels at which common activity interference, such as sleep and/or speech, is observed.

Thank you very much for your time. We appreciate the opportunity to submit comments at this public forum and look forward to FAA's future noise research efforts.

FAA Public Forum: Environmental Research Beyond 2000
Office of Environment and Energy (AEE)
Verbal Comments by D. W. MacGlashan
US-Citizens Aviation Watch (CAW)
November 20, 1997

My comments speak to several of the six questions posed in the Federal Register and amplify our written response. There are six areas Citizens Aviation Watch suggests the FAA look at.

Area 1. The aviation industry's exemption from complying with clean air laws should be rescinded because there is growing evidence that peoples' health is being severely affected by aviation activity. Damaging concentrations of volatile organic materials (VOM) are being blown into communities, ground water is being contaminated, streams are being polluted, and noise levels at large airports are over 65 DNL for many communities. In King County, WA, Department of Public Health data show that the health of residents living around King County International Airport (KIA) is being compromised. The incidence of respiratory diseases, pregnancy complications and heart disease, to name a few, are considerably higher than for people living in the nearby Seattle area. The mortality rate for all causes is 48 percent higher, and infant mortality is 50 percent higher than other Seattle areas. These are shocking statistics. KIA is not a large airport and 60 percent of the traffic is from light aircraft. One has to wonder what the statistics would be for an airport like O'Hare which produces over 2600 tons of VOM's per year according to the Illinois EPA. Citizens Aviation Watch suggests that you coordinate a series of health studies with the Department of Health and Human Services and NIH. We need to know how our health is being affected on a national scale and then make corrections to the way we operate our airports.

Area 2. The FAA is responsible for management of the High Density Rule. Currently, you manage only the IFR schedules, but not the actual take off and landing operations. Consequently, violations occur daily. You could reduce the noise levels at the high density airports if you actually carried out your whole responsibility. In 1986 the GAO reported that the FAA was not managing it properly, and had no formal organizational structure for doing so. That still seems to be the case. For Washington National Airport, you are, in fact, violating Federal law by not managing the slot rule. Citizens Aviation Watch suggests that you would do a great service to the communities

living near slot controlled airports by correcting this oversight.

Area 3. The 65 DNL metric does not adequately address the actual noise situation. Single noise events must be taken into account, and studies indicate that aircraft noise does indeed affect people's health and ability to learn. These studies should then be factored into the noise metric formulation. Additionally, a cap needs to be set on the maximum noise limit people have to live with. When the cap is violated, sanctions should be levied.

Along with the noise metric, attention is needed on the instrumentation used to measure noise. Tests done in 1996 by the Regional Commission for Airport Affairs in Seattle, WA. show that the A-weighted instrumentation is missing a significant amount of noise, confirming what people have been saying, that the noise is much louder than what is being reported. It was also learned that wing mounted engines make less noise than body mounted engines. Citizens Aviation Watch suggests that these tests need to be verified at other operating airports.

Area 4. Reexamine the number you are using for the people affected by aircraft noise. The 3.5 million cited by Mr. Erickson in his October 21st testimony to the House Subcommittee on Technology plainly uses a very restrictive definition which seems to have little to do with reality.

Area 5. Noise from helicopters in a metropolitan area is another serious problem. They usually fly low, often under five hundred feet. They rattle windows and knock pictures off the wall. Citizen groups in California recently requested that 1000 feet be established as a minimum altitude for transiting helicopters, but FAA has twice turned that request down. We think this was a bad decision and should be reconsidered. At the very least we would like to see the reporting of helicopter flights along with other flight data so that the offending organization can be identified and contacted.

Area 6. The FAA has been asked to provide more safety data to the public and is doing so on its Internet pages. We would like to see the addition of missed approaches and wave-off data. That would inform the public if any airports are having safety problems or if a particular airline is experiencing problems at an airport.

US-Citizens Aviation Watch

"Protecting the public's health, environment, property and promoting safety."

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November 20, 1997

Federal Aviation Administration (FAA), DOT.
Office of Environment and Energy

Environmental Research Beyond 2000

Dear Members:

US-CAW is a national organization comprised of local airport noise/environmental groups. Although recently formed last August, US-CAW presently represents over one million members.

While recognizing the contributions of aviation, the organization is aimed at protecting the public from adverse environmental impacts that aviation and airport activities have on public health, air/water/ground/noise pollution and property issues affecting everyone on our planet.

1. What aviation environmental issues concern you most and how does each affect you?

A: Air, water, ground and noise pollution; severe damage to public health¹ and property; safety, neighborhood losses, property value and resale, other educational, social and other quality of life issues.

¹ Casey Gordon Davis for Georgetown Crime Prevention and Community Council. "Master Plan Comments: Seattle-King County Department of Public Health Summary." Oct. 24, 1997.

How they affect us is obvious as we read on.

2. How successful have existing aviation remediation and mitigation policies been in responding to the impact of aviation activities on the environment?

A: Minimal at best. The Federal Aviation Administration has represented the air transport industry; however, there is no agency protecting the rights of the public. There are few, if any, regulatory checks and balances. Studies have shown noise monitoring programs are not objective². The Stage III is program inadequate. Studies have shown that the soundproofing program is inadequate in producing real noise reduction³⁻⁴. Ninety-nine percent of the complaints come from noise levels below the LDN ~65⁵. Federal agencies have not acknowledged or protected public health due to aviation noise, air, water, ground pollution.

To date, mitigation policies have addressed mostly the noise issue, but inadequately. Hazardous and toxic air pollution from aircraft exhaust, is a major source, although it has been largely ignored and addressed as a side issue. Concern or focus upon automobile and other air pollution impacts at airports has been used as a tactic to sidetrack the danger to public health induced cancer risk increases and other disease increases⁶.

All pollution produced by airport/aircraft operations should be weighed as from one source. Airports/aircraft and its collateral operations are a significant source polluter. (The "bubble" concept is the area in and around the airport.) When aircraft emissions are combined with other aircraft operation sources they produce twice⁷ the Volatile Organic Materials (VOM) per year than all the on-road vehicles at and near Chicago O'Hare International Airport, including automobiles, which are supposedly known to be the primary source of air pollution problems in the region.

What this means for the local residents living near O'Hare is that they are exposed to double the levels of daily criteria and toxic air pollution as other residents of the region located some distance from the airport sources. (Area residents already

² US-CAW testimony to the House Subcommittee on Technology Committee on Science re. Hearing to review the federal research and technology development activities to reduce aviation noise. October 21, 1997

³ State of Washington, Puget Sound Regional Council. "Expert Arbitration Panel's Review of Noise and Demand/System Management Issues at SEA-TAC International Airport - Final Decision." Mar. 27, 1996.

⁴ Natural Resources Defense Council. "Under the Flight Path." Mar. 1997.

⁵ *ibid.*

⁶ A- McCulley, Frick and Gilman Inc. Air Quality Survey Final Result January 1995, pp.26,27,36

B- EPA Toxics Emissions from Aircraft Engines Air RISC Information Support Center July 22, 1993, p.13

C- McCartney, M. Airplane Emissions Department of Environmental Health Sciences 21 April 1986, p.99

D- VIGYAN Inc. USEPA Estimation and Evaluation of Cancer Risks Attributed to Air Pollution in Southwest Chicago Final Summary Report Region 5 Air and Radiation Division April 1993

E- Lewis, R.A. Hazardous Chemical Desk Reference 2nd Edition 1991 Van Nostrand Reinhold

F- Puget Sound Air Pollution Control Agency 1993 Air Quality Data Summary, p.62

⁷ Mary Gade, IEPA, correspondence to Illinois Senator Peter Fitzgerald, Sept. 26, 1996 p. 2.

suffer from immense amounts of ground vehicle traffic pollution. O'Hare is one of the busiest ground traffic sites in Illinois, if not the world, with close to 200,000 cars and trucks entering and leaving the airport daily.) Similar conditions exist at airports around our nation and are totally unacceptable.

- According to the Illinois Environmental Protection Agency, O'Hare Airport operations emit -- 2679.1 Tons Per Year (TPY) of VOMs. (This does NOT include On-Road Vehicles [Those on-near airport property]).⁸
- In 1993, it was estimated that O'Hare Aircraft operations emit 25 Tons of benzene, 21 Tons of 1,3-butadiene, 140 Tons of formaldehyde per year.⁹
- One two minute 747 take-off is equal to operating 2.4 million lawnmowers for 20 minutes (NOx). That is four states' worth of lawnmowers.
- One, one minute DC-10 takeoff is equal to driving 21,530 cars one mile (NOx).

An independent study of airport pollution facts¹⁰ disclosed serious environmental risks to communities and the environment adjacent to airports, as well as a significant contribution to global warming from stratospheric aircraft air pollution.

Due to the mode of delivery, aircraft emissions are responsible for one-half of the atmospheric man-made nitrogen oxides burden¹¹.

Discharges of hazardous chemicals to the waters of the United States, such as glycols, metals, solvents, etc., are not being controlled¹². Many hazardous and toxic discharges are not disclosed to the Environmental Protection Agency or public¹³. Property and health value losses are not compensated. Loss of salability of homes near airports is being ignored.

Safety, which can be considered an environmental issue, is being compromised and subordinated to capacity increases.

3. What is being done to address your concerns and how effective is it?

⁸ Mary Gade, IEPA, correspondence to Illinois Senator Peter Fitzgerald, Sept. 23, 1996. p.2.

⁹ ViGYAN Inc. EPA Air and Radiation Report. "Estimation and Evaluation of Cancer Risks Attributed to Air Pollution in Southwest Chicago." April 1993. p. 13.

¹⁰ Natural Resources Defense Council. "Flying Off Course: Environmental Impacts of America's Airports. Oct. 1996.

¹¹ *ibid.* p. 72

¹² Alliance of Residents Concerning O'Hare. "Summary of Chicago's O'Hare International Airport Water Pollution." Chicago, IL. May 28, 1997.

¹³ Letter to C. Browner, EPA, from Natural Resources Defense Council et. al. *Petition to Add Standard Industrial Classification Code 45, Transportation by Air, to the List of Facilities Required to Report Releases of Toxic Chemicals.* Apr. 16, 1997.

A: Air pollution is not being regulated near airports, although ambient violations of the Air Quality Standards are considered likely. Glycol recovery/treatment, alternatives are not being implemented. Underground tank leaks are being ignored. So far, we have found that our drinking water in Baltimore and Seattle is likely poisoned by deicing and anti-icing operations¹⁴⁻¹⁵⁻¹⁶. Citizens must sue to collect damages to property value. The FAA has to date, ignored our citizens groups' safety concerns.

For decades the whole process has been inadequate. We cannot rely on an agency with such close ties to the industry to protect us. Thus, whatever has been done to address our concerns has been inadequate.

4. What should be done to address your concerns?

A: As the air transportation industry has a government agency, the FAA, that protects its best interests, citizens need to have an agency that protects their best interests¹⁷. Establish an agency to protect the public from the abuses of the aviation industry, an agency that will advocate a sustainable, equitable and accountable aviation industry.

The new agency should perform a comprehensive air monitoring study to determine baseline conditions. Establish High-Speed Rail to reduce need for regional air travel. Subsequent implementation of control measures to cap flights, remove residential and other sensitive land uses or whatever necessary means to protect public health and the environment. Infrared de-icing facilities, 100% recovery, treatment and/or transfer of hazardous waste for proper disposal. Complete remediation of all fuel and petroleum contaminated sites at all airports. Compensation for property losses commensurate with real measurable losses in replacement cost/value. Worst case consideration in all capacity enhancement simulation studies, rather than compromises.

5. What role does research have in addressing your concerns?

A: As you can see, to date the aviation industry high-tech "fixes" have had little effect on protecting the countless millions of residents affected by the massive airport/aircraft operations. Technology alone will not solve the air pollution problem. NOx continues to increase, creating a problem for ozone and nitrogen dioxide, while reducing carbon monoxide in the new aircraft engine manufacture. Aircraft engine related particulate impacts must be disclosed and real solutions

¹⁴ Airport Coordinating Team, Inc. "BWI Discharges Toxins into Local Waters." Baltimore, MA. Feb. 26, 1997.

¹⁵ A. Scott McDowell. *Sawmill Creek-Watershed "Restoration" Project*. Baltimore, MA. Mar 1997.

¹⁶ Waste Action Project vs. Port of Seattle.

¹⁷ US-CAW cited letter to President Clinton. Nov. 8, 1987.

discovered. Alternative, environment friendly fuels, additives, de-icing and anti-icing agents must be researched. Leaking storage tanks and lines, solvent use, fuel spills, other hazardous chemicals used at airports must be controlled and cleaned up. Not released into the environment. Search for ways to control spills, releases, etc., must be a priority. Sound barriers, berms, hush-houses have proven to be somewhat capable in controlling on-the-ground noise can be re-designed to be more effective. Airborne noise impacts will be difficult to mitigate without greater engine technology advances and commitment by the air transport industry to purchase the technology.

Scientific and medical research on the reliability of home insulation to protect public health must be funded. Compromises must be eliminated. Countless millions of real people, experiencing real world impacts known to cause adverse health effects, are being left unaided and injured by the current programs.

6. Are important effects of aviation activities on environmental quality currently not addressed in government policy and scientific research?

A: Besides the above mentioned, we hear only rumors of nitrogen oxide reduction in newer aircraft engine manufacture, no timeline, no cost, no promise of implementation. We have heard of infrared de-icing facilities, but only limited in use. We have been told repeatedly that home insulation and phase out of Stage II is the solution to the noise problem. We know the opposite to be true.

We realize this is an expensive list of essential items to implement. However, we also know that airport funds are fueling massive capacity increases, either adding runways, gates or initiating technological advances, costing billions of dollars each at dozens of airports across the country. We believe that for every dollar spent on expansion, the costs to the environment, local communities and real people continue to climb exponentially. For decades, in the genuine world, little has been accomplished when it comes to the above-mentioned. Before this situation gets any further out of hand, the time is now to take real, meaningful action.

Thank you.

Jack Saporito
President, US-Citizens Aviation Watch
Director, Alliance of Residents Concerning O'Hare

Encl. supporting documentation:
US-CAW cited letter to President Clinton. Nov. 8, 1987.

Casey Gordon Davis for Georgetown Crime Prevention and Community Council.
"Master Plan Comments: Seattle-King County Department of Public Health Summary."

Oct. 24, 1997

US-CAW testimony to the House Subcommittee on Technology Committee on Science
and Technology. Hearing to review the federal research and technology development activities to
reduce aviation noise. October 21, 1997

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PRIORITY

November 8, 1997

President Bill Clinton
Executive Office of The White House
1600 Pennsylvania Avenue, N.W.
Washington, DC 20500

Dear Sir,

In a letter to you from the City of New York, Borough of Queens, seven members of Congress stated that two million people were adversely affected by environmental pollution and other consequences of operations at LaGuardia Airport. (9/10/97) The situation was described as intolerable.

Another example: Millions of citizens living near Chicago's O'Hare Airport already carry an enormous burden to public health, environment, vehicular traffic, safety and other adverse conditions caused by existing airport operations of approximately 1,000,000 flights annually.

Recently, Illinois Congressmen Henry Hyde and Jesse Jackson, Jr. wrote to relevant federal agencies, "(their) concerns that your agencies are not only failing to properly enforce relevant federal laws as they relate to this problem — but also to voice our worry that some of your agencies may actually be active participants in fostering and encouraging violations of federal laws and policies relating to this problem." (10/1/97)

If the airport pollution is calculated correctly, I believe that O'Hare Airport is, probably one of the largest, if not the largest, single, man-made source polluters in the world. Many of the world's larger airports would also be in this category.

Advocating a sustainable, equitable and accountable aviation industry.

President Clinton
November 8, 1997

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While recognizing the importance of aviation, we also see first-hand the damage that the industry causes. We are seriously troubled about the existing conditions of air-water-ground-noise pollution, safety risks and damage to public health to possibly millions, living just near Chicago's O'Hare Airport. We have this concern of airports all over our nation.

When considering the massive predicted increases in aviation, the environmental situation is already totally unacceptable. Recently, these issues have generated concern worldwide.

We ask for your attention to this matter. The FAA and other various agencies have not been attentive to the people's needs. Decades of abuse and complaints have shown that high-tech aviation industry "fixes" have not worked in the real world.

As I mentioned to you in an earlier e-mail there are answers to the problem, one being High-Speed Rail.

I have attached a summary from a recent health study that shows the devastating affects that airport pollution has on human health (p. #2). I hope and pray that this might be the catalyst to generate permanent, meaningful relief for all the countless American people that are affected.

Thank you.

Most respectfully yours,

Jack Saporito
President, US-Citizens Aviation Watch
Director, Alliance of Residents Concerning O'Hare

c: The Vice President A. Gore

Encl. Seattle Washington King County International Airport/Boeing Field Master Plan Comments: Health Study Summary

11/12/97 WED 13:21 FAX 5080202

From: Debi DasMerita To: Jack Saporito

10-27-1997 09:14AM FROM Lorne Dove

ARECO

Date: 10/27/97 Time: 11:37:20

TO

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FILE

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October 24, 1997

Master Plan Comments
King County International Airport
7233 Perimeter Road South
Seattle, WA 98108

Re: King County International Airport/Boeing Field
Development of Alternatives Technical Paper, September 1997
Recommended Development Plan

Dear Sir or Madam:

We are writing on behalf of the Georgetown Crime Prevention and Community Council to express concerns respecting what we perceive to be grave procedural and substantive defects relating to the "Recommended Development Plan" for the King County International Airport ("KCIA").

Our initial premise is that the process is inconsistent with the mandates of the State Environmental Policy Act of 1971 (RCW 43.21C *et seq.*) and the Clean Air Act (42 U.S.C.A. §1857 *et seq.*) and amendments thereto. The State Environmental Policy Act declares one of its purposes as being to "stimulate the health and welfare of man." As set forth in RCW 43.21C.020 in pertinent part:

(2) In order to carry out the policy set forth in this chapter, it is the continuing responsibility of the State of Washington and all agencies of the state to use *all practicable means*, consistent with other essential considerations of state policy, to improve and coordinate plans, functions, programs, and resources to the end that the state and its citizens may: ...

(b) Assure for all people of Washington safe, *healthful*, productive, and esthetically and culturally pleasing surroundings: ...

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(3) The legislature recognizes that each person *has a fundamental and inalienable right to a healthful environment* and that each person has a responsibility to contribute to the preservation and enhancement of the environment.
[Italics added.]

Likewise, the Clean Air Act articulates among its basic purposes: "to protect and enhance the quality of the Nation's air resources so as to *promote the public health and welfare ...*" [42 U.S.C.A. § 1857] (Italics added).

It is in this context that the Development of Alternatives Technical Paper of September 5, 1997 ("Technical Paper") and the Recommended Development Plan Working Paper of September 1997 ("Recommended Development Plan") demonstrate their most glaring deficiencies. The Recommended Development Plan almost completely ignores the issue of public health. Its evaluation of this fundamental issue is limited to one sentence: "The development and noise impacts which would occur under this alternative can be mitigated and the alternative will enhance the region's economic vitality." Even on cursory review of the Technical Paper, however, the recommended alternative, Alternative 4, admittedly is the *second worst* choice in terms of environmental considerations (Table 11, p. 60), contamination potential (Table 12, p. 64), and noise impact comparison, affecting the most dwellings, acreage, and population (Table 13, p. 68). Alternative 4, the so-called "Balanced" Alternative, is demonstrably balanced *only* in terms of airport uses, *not* in terms of the impacts on the public health and the adjacent communities.

The Technical Paper gives only scant, misleading data respecting air quality when it states: "Air quality has continued to improve in the Puget Sound area due to increased use of newer cars with improved vehicle emissions controls." (Technical Paper, p. 55.) The Georgetown community and the KCIA, both located together in the Duwamish valley, are currently in an EPA Nonattainment Area subject to the Redesignation Request and Maintenance Plan for particulate matter (PM₁₀); the Puget Sound PM₁₀ Emissions Inventory on its face "did not include emission factors for the predominant types of aircraft being used in the Seattle NAA."

According to the Seattle-King County Department of Public Health,

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Georgetown hospitalization rates for all respiratory diseases are statistically higher than both King county and Seattle/North King County rates for all age groups, and significantly statistically higher for all age groups except 45-64 year olds, whom we would expect to be more resistant to environmental insult than the very young or very old. The respiratory disease hospitalization rate for children from birth to four years of age is the highest rate of all, with 2194.5 hospitalizations per 100,000 children as compared to 1109.9 hospitalizations per 100,000 children in King County generally, nearly twice the rate.

According to the Seattle-King County Department of Public Health, residential neighborhoods around the KCLIA in zip code 98108 have:

- a 57% higher asthma rate
- a 28% higher pneumonia/influenza rate
- 26% higher respiratory disease rate
- a 83% higher pregnancy complication rate
- with genetic diseases statistically significantly higher
- as are higher mortality rates with 48% higher for all causes of death: 57% higher heart disease, 36% higher cancer death (of cancer deaths 31% were lung cancer), and with pneumonia and influenza among the top five leading causes of death
- infant mortality that is 50% higher
- average life expectancy of 70.4 compared to Seattle's average of 76.0.

Access to health care and smoking rates are not statistically significantly different than for the rest of Seattle or King County.

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According to the Technical Paper: "Additional airplane and truck traffic, and ground support equipment would increase pollutant emissions at KCI; and all of the alternatives will have the potential for some impact on the adjacent and mixed land uses." (p. 55). This statement obfuscates the fact that some of the alternatives involved reduced use. The so-called *status quo* alternative is patently misleading due to its reliance upon 1994 operations during a period of closure of the McChord Air Base and increased "touch-and-go" usage by flight schools (422,804 operations); the 1996 levels (337,380 operations) are, in fact, less than 80% of the 1994 levels used to set the so-called "status quo". Total operations projected through the year 2015 have been estimated at 502,000 operations for the so-called "Balanced" Alternative, an increase of nearly one-third over existing levels. This poses an imminent danger to the health and viability of the Georgetown community.

This month, the FAA is expected to issue guidance on compliance with Executive Order 12989 on Environmental Justice. The Executive Order requires consideration of social impacts to low income and minority populations under the National Environmental Policy Act. Such populations may not be disproportionately subjected to high health and adverse risks.

We also note that the SEPA, RCW 43.21C.020(2)(d) provides as an underlying purpose of the SEPA the "preserv[ation of] important historic, cultural, and natural aspects of our national heritage." Although the City Light Steam Plant is listed on the National Register of Historic Places, as is acknowledged in the Technical Report (p. 58), the Technical Report erroneously concludes: "None of the alternatives would impact these sites." (p. 58). In fact, the proposed taxiway lies between the Steam Plant and across its current access route. The Steam Plant Board has apparently received no formal notice of these proposals; on information and belief neither have the State Office of Archaeology and Historic Preservation or City Light, the Steam Plant's owner, received formal notice.

We are deeply concerned that the selection of Alternative 4 will become a *fait accompli* in future discussions without meaningful consideration of community input or concern for the profound health issues surrounding airport usage. We also must raise the procedural concerns surrounding notice of the comment period relating to the Technical Report to the public and interested parties. Accordingly, we respectfully request that the comment period be extended an additional 91 days to

11/12/97 WED 13:23 FAX 5060202

From: Debi Deckerale To: Jack Saporta

10-27-1997 09:21AM FROM Lorne Dove

ARECO

Date: 10/27/97 Time: 11:38:03

TO

5298452

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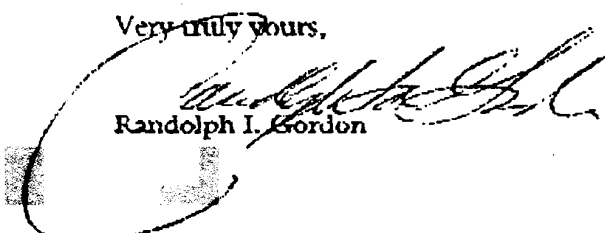
October 24, 1997

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January 31, 1998. This will specifically permit the FAA regulations on Executive Order 12989 to be considered and those concerned with historic preservation to be given notice.

Thank you for your consideration of this submission.

Very truly yours,


Randolph I. Gordon

TOTAL P.09

US-Citizens Aviation Watch

"Protecting the public's health, environment, property and promoting safety."

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Debi DesMarais - Seattle

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Val Cole - Los Angeles

Steven Debrecezy - Baltimore

Ellen Treager - Scotch Plains, NJ

Dr. Frans C. Verhagen - New York

October 21, 1997

F. James Sensenbrenner, Jr., Chairman and members of the Subcommittee on
Technology
United States House of Representatives
Committee on Science

re. Hearing to review the federal research and technology development activities to
reducc aviation noise.

Dear Members:

"According to the FAA, about 3.5 million citizens live in areas where aircraft noise exceeds the level at which noise constitutes a sustained interference with routine daily activities. This number is a major reduction from the estimated 7 million citizens similarly impacted in 1974."

The FAA has grossly underestimated the number of people suffering from aircraft noise pollution. At the very least, the amount of people affected has continued to be the same. "While advances in engine technology have resulted in quieter aircraft (to the ear)...the projected continued growth in air travel threatens to cancel out these gains."¹ Actually, at O'Hare Airport, and others around the nation, these gains have already been surpassed because of the massive increases in flight operations. And still, flights are expected to double in the next ten years, to two million, with noise contours increasing in size².

Experience has shown us that the methods used by the FAA to count the number of affected people are also suspect: the City of Chicago's noise figures are much lower than those reflected in preliminary data collected by the Suburban O'Hare Commission's³ own noise monitoring system. It was projected by Chicago that without noise abatement actions, the number of residents affected by 65 DNL⁴ is 48,460⁴. Yet, the State of Illinois conservatively predicts that 1.5 million residents were affected (400,000 homeowners)⁵.

Advocating a sustainable, equitable and accountable aviation industry.

Throughout the country there have been tricks employed to give the appearance that the numbers of affected people have been reduced: 1) Narrowing the flight paths, thereby, running the aircraft continuously over the same people; 2) Buying up property; 3) Playing "Beat the box" (maneuvering flight paths to avoid the monitor), turning off the monitor, manipulating the data, running multiple aircraft events over the same monitor simultaneously, burying the monitor in a cluster of trees or another sound absorbing material, etc.

Technology and noise mitigation plans employed to reduce the impacts of aircraft noise, for the most part, have failed: The Expert Noise Panel concluded that the best noise mitigation plan in the country, SEA-TAC, has failed to produce meaningful noise reduction⁶. A five year report on aircraft noise, *Under the Flight Path*⁷, found that virtually all (over 99 percent) of the noise complaints came from homes below the 65 decibel noise threshold set by the FAA.

In fact, and most alarming, the FAA's use of the 65 DNL metric, as the aviation industry's baseline, "grossly underestimates the number of people actually affected by aircraft noise, and obscures significant adverse environmental impacts of aircraft noise"^{8/9}. US-EPA, OSHA, and most all medical and educational institutions around the world recognize that the average level at which noise damages health is 55DNL.

The FAA and FICAN has steadfastly refused to acknowledge the growing mountains of evidence that noise at levels of 55DNL or greater, and sleep deprivation caused by aircraft noise are major causes of/or contribute to serious diseases, while a major portion of the rest of the industrialized world has taken measures to protect its citizens¹⁰.

Additionally, the FAA has ignored the fact that it is just not the sound that we hear that destroys our health or damages our structures, but sound waves produced by aircraft in frequencies that humans do not hear. Thus, we should be measuring soundwaves from aircraft in other weightings besides "A".

All this is concerning, especially with the predictions of the future. According to NASA and the FAA, air capacity needs are expected to double within the next 10 years, triple within 20. It is predicted that supersonic planes will increase from approximately 20 to 1500 aircraft in twenty years. Super jumbo air buses are expected to be built, if the airlines buy them. All these innovations will be much louder.

Noise is subjective: People hear differently. For example: Two of my members hear at ranges above normal, one at a <5 dB, the other at a <30 dB. People do not hear DNL. They hear noise spikes. People do not hear averages. Single event noise disturbs sleep and their health is ruined by it.

Finally, 45dB (single event) is the point at which conversation and learning stops. That is the point where aircraft noise exceeds the level at which noise constitutes a sustained interference with routine daily activities. This is particularly true when your airport has 2700 operations per day.

The FAA is wrong! Aircraft noise now affects tens of millions or more people. A new, fair way to measure aircraft noise is needed to take into account the above mentioned and relief for people is needed now.

Thank you.

Jack Saporito
Director of Alliance of Residents Concerning O'Hare
President of US-Citizens Aviation Watch
(transmitted)

ENDNOTES:

¹ Natural Resources Defense Council. "Flying Off Course: Environmental Impacts of America's Airports." Oct. 1996.

² Source: Bob Hixson - FAA.

³ Suburban O'Hare Commission consists of nine suburban communities and the county of Du Page.

⁴ Landrum & Brown. "Chicago Noise Compatibility Plan." July, 1994.

⁵ Lee Daniels, Speaker of the Illinois House, to Jack Saporito. May 17, 1995.

⁶ State of Washington, Puget Sound Regional Council. "Expert Arbitration Panel's Review of Noise and Demand/System Management Issues at SEA-TAC International Airport - Final Decision." Mar. 27, 1996.

⁷ Natural Resources Defense Council. "Under the Flight Path." March, 1997.

⁸ League for the Hard of Hearing. "Airport Noise Fact Sheet for International Noise Awareness Day." April, 1996.

⁹ Natural Resources Defense Council. "Under the Flight Path." March, 1997.

¹⁰ Too numerous sources to cite.

SUSTAINABLE NEW-WEALTH INDUSTRIES INC. INTERNATIONAL**SNI**Suite 1050, 1925 North Lynn Street Arlington, VA 22209
(703) 522.3392 Fax: 4193 energyusa@aol.comJames Littleton, AEE-120
FAA Office of Environment and Energy
Federal Aviation Administration
Washington, DC 20591

1 December 1997

Fax: 202.267.5594

Please accept this written material as an addendum to my brief presentation at the Federal Aviation Administration's, Office of Environment and Energy public hearing on 20 November 1997. The purpose of testimony is to solicit inputs from the FAA in launching the International Clean Airports Program and to recommend that Baylor University be designated by the FAA as one of the University Partners in the FAA's RE&D Advisory Subcommittee on Environment and Energy.

My name is Bill Holmberg, President of Sustainable New-Wealth Industries. We are advocates for energy efficiency and renewable energy with a focus on biofuels. This includes renewable and alternative fuels for ground vehicles and aircraft. I have been involved in these areas for twenty years in both government private sectors.

Today, I also represent the Department of Aviation Sciences at Baylor University.

With the initial support of the Department of Energy, Baylor launched the U.S. Clean Airports Program in mid-1996. Five communities now have Clean Airports, all small with the exception of Will Rogers Airport in Oklahoma City. Interest is rapidly mounting with international overtures.

The U.S. Clean Airports Program established the following goals:

- o The airport will serve as home base for at least one alternative fuel aircraft, or be used regularly by several alternative fuel aircraft;
- o The airport will have refueling infrastructure for at least one type of alternative fuel aircraft;
- o The airport will use alternative fuels in at least some of its ground vehicles (such as courtesy vans used by rental businesses or hotels, tractors used for pulling baggage carts, and emergency responses vehicles); and
- o The airport will establish a public awareness campaign about alternative fuels (such as a display or an education program).

Under this concept, the Clean Airports Program established local partnerships between stakeholders, including fixed base operators, university aviation programs, and flying clubs, which are committed to operating aircraft on alternative fuels. These grass roots partnerships work to solve local transportation and air quality problems. Clean Airports partners work directly with local businesses and governments to shepherd them through the goal-setting, coalition-building, and commitments process necessary to

12-01-1997
establish the foundations for an alternative fuels airport.

Since these modest beginnings, the U.S. Clean Airports Program is now transitioning into the International Clean Airports Program. The international dimension expands the program beyond alternative fuels to include energy efficiency, all renewable and alternative forms of energy, and broad-based environmental programs including noise, water, land use, waste minimization and recovery, air pollution and the stabilization of greenhouse gases.

This international dimension and expanded approach correctly positions the original focus on alternative aircraft fuels in the broader perspective of meeting the needs of a rapidly expanding aviation industry in a world demanding greater environmental protection and reduced use of fossil fuels.

The impetus for establishing the International Clean Airports Program was provided by the Clean Airports Summit in Denver, Colorado (10/17-19/97) and the Second International Conference on Alternative Aviation Fuels Conference at Baylor in Waco, Texas (11/6-8/97).

In Denver, the focus was primarily limited to use of alternative fuels in ground support vehicles, an expression of environmental concerns, and discussions on aircraft operations limiting fuel consumption. Alternative aviation fuels and broad-based environmental concerns were not primary agenda items.

The Waco conference addressed a broader range of issues including discussions and demonstrations of new flight concepts; solar, LNG, ethanol, ETBE and biodiesel powered aircraft; piston and turbine fuels provided by new refinery processes using coal, natural gas, and biomass; a full range of creative concepts to advance and improve aviation and airport operations; and broad-ranging environmental concerns including greenhouse gas emissions and aircraft emissions as the major source of air pollution at airports.

As a result of these two conferences, it became clear that there was need for an effective and cooperative merger of corporate and government interests (safety, cost-effectiveness, speed of travel, convenience and international acceptability) with the interests of the public for the same reasons, with the addition of public health and the environment. This merger, the ICAP, can investigate new concepts that may be before their time in the industry/government interface. There is the hope that historic conflicts between advancement and intrusion can be tempered with advanced aviation, engine, fuel, environmental and communications technologies and -- good will.

It was felt that the International Clean Airports Program (ICAP) could bridge these oft-times supportive and sometimes disparate interests. To do so, the ICAP must fully embrace cooperative and voluntary action. That is understood and accepted.

The opportunities for such cooperative and voluntary action include recognition that:

- o Greenhouse gas emissions are international problems -- aviation is the lead international industry in terms of communications, coordination, operations, safety and advanced technology;
- o Air travel is a major growth industry in most parts of the world -- airport facilities and operations are constantly being expanded and upgraded with flexibility unique to airports;
- o Airports and aircraft are perceived to be "high-tech" industries capturing state-of-the-art

airline operations. ICAP will strive to effectively convey concerns to the aviation industry in a cooperative manner.

The effectiveness of ICAP's organizational structure is greatly enhanced by advanced communications technology and its focus on cooperation, voluntary action, education and technology transfer.

ICAP, rooted in the U.S. Clean Airports Program, is an open organization in its formative stages encompassing expertise from various international groups, including those focusing on environmental protection. ICAP will work with involved industries and organizations to develop concepts and plans designed to effectively mitigate the environmental impact of airport and aircraft operations. In doing so, ICAP hopes to preclude the need for more restrictive environmental legislation.

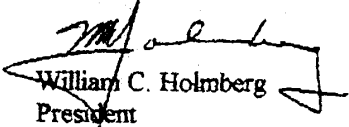
This, then, is a brief history and position of the U.S. Clean Airports Program; the rationale for expanding this concept to the International Clean Airports Program; the motivations for this expansion; and, the guiding principals (Mission and Priority Tasks) for the ICAP.

Baylor University is the proper center for ICAP. They have 20 years experience in alternative aviation and ground transportation fuels; in air sampling from aircraft; in carrying the message for these two challenges to international audiences; and for building the educational foundation for these endeavors.

It is therefore recommended that the Department of Aviation Sciences at Baylor University and ICAP be supported in efforts to formalize the International Clean Airports Program. As an important step in this process, it is recommended that Baylor University be designated by the Federal Aviation Agency as one of the University Partners in the FAA's RE&D Advisory Subcommittee on Environment and Energy.

A more detailed operational plan for ICAP is being developed and will be made available to all interested parties on request. This plan is being jointly developed by a cooperative effort between Baylor University in Waco, Texas and the International Centre for Aviation and the Environment (ICAE) based in Canada. Their efforts will focus on liaison with interested parties including government offices, associations and individuals, developing a supportive education program at Baylor University and organizing a comprehensive information monitoring, storing and exchange system at the ICAE. An outline of this system will be forthcoming.

For more information, please contact: energyusa@aol.com. Comments are appreciated.


William C. Holmberg
President

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Statement of the National Organization to Insure a Sound-controlled Environment

before the Federal Aviation Administration

Office of Environment and Energy

Public Forum on Aviation-Related Environmental Issues

November 20, 1997

George Nichols

Secretary and Member, NOISE Board of Directors

My name is George Nichols. I am the Principal Environmental Planner for the Metropolitan Washington Council of Governments (MWCOG) and the Secretary of the National Organization to Insure a Sound-controlled Environment (NOISE). I am speaking this morning on behalf of Tom Egan, the President of NOISE, the NOISE Board, and the members of NOISE. We are pleased to have this opportunity to present brief comments at this public forum on aviation-related environmental issues. We may also submit additional comments for the record, as may some of our individual members.

NOISE is a national organization of local governments, citizens groups and others working to reduce the impact of aircraft noise on communities. MWCOG is a member of NOISE through its Committee on Noise Abatement at National and Dulles Airports. NOISE has long supported Federal policies to reduce unreasonable noise impacts from civil aviation by a combination of policies, including quieter aircraft, safe noise abatement operating procedures, and Federal funding for local programs to achieve compatible land uses around airports. The Department of Transportation has recognized NOISE as the authoritative voice of cities and counties on these issues by appointing NOISE to bodies such as the Steering Committee of the NASA/FAA Advanced Subsonic Technology Noise Reduction Project, the Aviation Rulemaking Advisory Committee, the FAA Research, Engineering and Development Advisory Committee, and the Advisory Committee to the InterAgency Committee on International Aviation.

The primary message that NOISE wishes to bring today is that airport noise continues to be a significant environmental problem that needs to be addressed, both for the environmental health of our communities as well its potential constraint on airport and air transport capacity.

An impression has been created in some circles that with the passage and implementation of the Airport Noise and Capacity Act of 1990, which required the phase-out of Stage Two aircraft and the attainment of an all-Stage Three fleet mix by the year 2000, airport noise has ceased or will soon cease to be a concern. This is highly inaccurate. First, there are degrees of quiet within the Stage Three category, with some aircraft significantly quieter and others just barely making the threshold. This is why NOISE is highly supportive of the FAA's continued participation in research with NASA and the industry to develop aircraft quieter than the current Stage Three level. Second, a quieter fleet mix is just one of the tools needed to reduce airport and aircraft noise. Other tools include land and building acquisition, sound insulation, land use restrictions, take off, landing and run up procedures, and overflight controls.

While noise contours are shrinking at some airports due to the phase in of the Stage Three fleet, an expected increase in the number of flights will expand these contours again in many instances. Noise contours will also increase with the introduction of the next generation of larger aircraft. In addition, the development and expansion of regional and reliever airports and the conversion of former military bases to civilian airports will bring noise problems to many communities that are not now exposed to it. Another increasingly significant environmental concern is the noise impact of the growth of air cargo operations, which tend to occur at smaller airports and take place mainly late at night when background levels are low and sleep disturbance

most likely. Citizens experience significant annoyance from aircraft noise at levels below the 65 Ldn contour used by FAA for most Part 150 and AIP grant purposes.

Even under current operating levels there exists a large backlog of noise mitigation needs. The residential sound insulation program agreed to by the San Francisco Airport and surrounding communities, for example, will cost over \$130 million. We understand that the San Francisco Airport has committed to using its own revenue for this program to the extent not covered by federal funds. This is fortunate because the entire annual set aside of discretionary funds in the FY 1998 AIP appropriation for noise is only \$200 million for the whole country. While this is an improvement over the administration's recommendation of \$21 million and a small increase over last year's level, it is below the amount called for in the AIP formula, and significantly below current needs.

NOISE fought hard during the reauthorization of the FAA last year to preserve a statutory set-aside of discretionary funds within the Airport Improvement Program for noise mitigation. This statutory set-aside was first created as part of the package of proposals that became the Airport Noise and Capacity Act (ANCA) in 1990. NOISE was also very active in the debate and enactment of ANCA. In addition to the requirements on the scheduled airline industry to achieve a 100% Stage Three Fleet of quieter aircraft by the year 2000, ANCA includes statutory and regulatory limitations on the ability of airport proprietors to speed up the pace of the transition to an all-Stage Three fleet beyond that established by the FAA's Part 191 regulations and designation by Congress of not less than 12.5% of discretionary AIP grant funds solely for noise abatement purposes.

The noise set-aside in particular allows airport proprietors access to Federal user funds to reduce noise impacts on neighboring communities through projects such as land acquisition and soundproofing. This has been a successful program but much incompatible land and incompatible use remains for which funding will be required. NOISE was very pleased that in adopting the Federal Aviation Administration Reauthorization Act in October 1996 Congress rejected the efforts of some airport interests to eliminate the statutory set aside of discretionary funds for noise mitigation.

We point out that the availability of a lower level of set-aside federal funds does not relieve an airport sponsor of its obligation to fulfill noise mitigation promises made to its surrounding communities as part of a Part 150 Plan or airport master plan, or to address future noise problems that may arise in a community. Operators may therefore have to use their own funds to fulfill these promises, reducing funds available for other airport needs.

NOISE is also pleased that Congress reaffirmed its commitment to addressing aviation noise concerns by establishing an Office of Noise Ombudsman and by requiring that any improvement in aircraft engine emissions not come at the expense of noise reduction. The purpose of the Office of Noise Ombudsman is to provide an independent liaison between the FAA and noise-impacted communities, including notice and consultation before any changes are made in overflight routes. NOISE applauds the FAA for moving ahead to implement the new office during fy 1997 even without a budget. NOISE is working to see that this Office is adequately funded,

and that it is given appropriate stature and significance within the FAA decision making process. Simply creating an office is not an adequate guarantee of effectiveness. For example, locally one branch of the FAA gave approval to an operator numerous daily, noisy helicopter sightseeing flights over residential areas of the District of Columbia, without any notice to the Office of Noise Ombudsman-- nor, I might add, to the local communities, the Metropolitan Washington Airports Authority, or any other relevant organization.

NOISE urges that appropriate budget resources also be made available to implement several other community liaison provisions of the FAA Reauthorization Act. These include new provisions that require the Secretary of Transportation to cooperate with State and local officials to ensure that airport planning is coordinated with other state and local transportation planning, to consider comprehensive long-range land-use plans and overall social, economic, environmental, system performance, and energy conservation objectives, and a provision that requires the Secretary to encourage the inclusion of airport operators in the Metropolitan Planning Organizations that have responsibility for transportation planning in urban areas.

NOISE recognizes that Congress decides budgets. However, budgets start with requests. We urge the FAA and the administration to show their commitment to community-compatible aviation policies by requesting more adequate funding for these needs in the future

The notice for this forum also asks what important effects of aviation activities on environmental quality are not currently addressed in government policy and scientific research. NOISE has identified the following policy and research needs that should be addressed:

1. A potential exists for erosion of environmental accountability to local communities through the shift to passenger facility charges and other user fees as a source of airport project funding.

NOISE is concerned that proposals to shift the burden of airport improvement funding from appropriated dollars to passenger facility charges and other user fees can lead to further disenfranchisement of noise-impacted communities. These same concerns arise in the context of privatization experiments. This trend can also lead to a loss of ability for the Congress and the FAA to ensure that national noise objectives are met through the appropriations and grant making process.

PFC revenue may be used under much less restrictive conditions than apply to noise compatibility measures and other projects that use federal AIP grant funds. NOISE is particularly concerned that current law allows airports to use PFC revenue for "noise compatibility measures eligible for assistance under [49 U.S.C. §47504], whether or not a program for those measures has been approved under section 47504" (49 U.S.C. §40117). This exemption allows airports with approved Part 150 plans to use PFC revenue without respecting Part 150 plans, even though the communities surrounding the airport rely on those plans when making their own land use decisions. It also allows airports to avoid the requirements of §47504(a) for "consulting with public agencies and planning authorities in the area surrounding the airport" as part of preparing the project application, for notice and an opportunity for a public

hearing on the proposed noise compatibility measure, and for demonstrating that the project will reduce existing noncompatible uses and prevent introducing additional noncompatible uses.

The only requirement for general public notice in a PFC project application is after submission to the FAA. When airports use PFC funds in ways inconsistent with Part 150 plans, without conducting Part 150 review including public involvement, or avoid the Part 150 process entirely, the value of the plans is undermined. NOISE would support a requirement that FAA hold a public hearing in the airport area before approving an application for use of a PFC where the proposed project financed by the PFC is not part of an already approved airport plan.

As PFCs grow in use, replacing federal funds that have to meet stricter conformity with approved plans and programs, this becomes an even more serious consideration. Otherwise PFC revenue itself can become another form of revenue diversion, which Congress has consistently legislated against.

NOISE recommends a change in FAA policy and law to require that any projects funded with Passenger Facility Charges to conform to the existing Part 150 plan. At a minimum, the FAA should be required to hold a public hearing in the airport area before approving an application for use of a PFC where the proposed project financed by the PFC is not part of an already approved airport plan. Privatization applications should also be subject to public hearing in the affected community, not just a notice in the Federal Register.

2. A significant increase is needed in the commitment to research, engineering and development funds for environment and energy, including development of quieter aircraft engine technology, as well as significant increases in NASA funding for this purpose.

NOISE has a great interest in this part of the FAA budget because it is the source of funding for the FAA's share of important and ongoing research into the development of quieter aircraft engines. The FAA is a partner with the National Aeronautics and Space Administration in the Noise Reduction Element of the Advanced Subsonic Technology project. This research was mandated by Congress. The project is on schedule and is producing some very promising results that can lead to practical production of Stage 4 jet engines, quieter helicopters, and quieter propeller craft. In recent years, however, NASA has borne almost the entire federal cost of the project. NASA is also facing budget constraints.

This kind of research needs a reliable and multiyear commitment to be successful. The proposed cut in RED funding sends the wrong signal to NASA and the aircraft engine industry about FAA's long term commitment to funding the development of quieter aircraft technology. NOISE agrees with the Transportation Research Board's identification of quieter aircraft technology as an important priority, and urges no reduction in an already very limited allocation.

3. Require the FAA to redefine DNL to better reflect actual perception and effect of noise.

4. Provide broader support for studying the health effects of noise, particularly the effects on learning, work environments.

5. Require monitoring of SEL by all commercial airports.

6. Establish incentives to hasten conversion to Stage 3 aircraft.

7. Establish a Stage 3.5 deadline.

8. Require meaningful input by citizens impacted by aircraft noise in NEPA reviews and requiring airport proprietors to hold public hearings for all other non-major actions that have a noise impact.

9. Reassess the validity of the Integrated Noise Model.

10 Amend certain federal laws, such as the housing replacement law, that limit local governments' ability or increase the cost of noise mitigation.

Finally, NOISE is opposed to the policy of preemption of airport operator ability to manage noise impacts through mitigation measures such as night time noise restrictions, fleet mix requirements, imposition of noise standards stricter than Stage III levels. We will continue to work with airport operators to reverse this aspect of the federal legislation.

NOISE appreciates the opportunity to present these comments. We would be happy to answer any questions, as well as to meet with you to supply any additional information that would be helpful.

James Littleton, c/o FAA Office of Environment and Energy
1997
800 Independence Ave., S.W.
Washington, D.C. 20591
Fax: 202-267-5594

November 19,

It is our understanding that FAA will hold a forum on November 20, 1997 to discuss aviation related environmental issues. Pertinent to this forum, I am submitting to following information.

- 1.) LDN 65 (CNEL 65 in California) is not a proper measure of airplane noise discomfort. In San Jose and elsewhere, most noise complaints are from the area outside the LDN 65 area. EPA recommends LDN 55, which should be adopted.
- 2.) NOx is an important precursor of smog. Newer aircraft engines will vent larger amounts of NOx. When combined with volatile organic gases and sun light, smog levels will increase. This poses a large problem in our San Francisco Bay Area air basin. Serious efforts should be devoted to reducing the NOx levels produced by aircraft.
- 3.) Aircraft emissions include Benzene and Formaldehyde --and these are carcinogenic. Careful evaluation of levels should be done in and adjacent to airfields. The potential rise with increased air traffic should definitely be evaluated. These levels should be compared to those levels considered safe or hazardous by EPA.
- 4.) Aircraft emissions (see above) will be added to those produced by vehicle transportation to and from airports. As both sources increase, smog and air pollutant levels around airports will definitely worsen. Any airport expansion plan should be accompanied by alternate transportation planning to and from the airport, i.e. mass transit, people movers, electric vehicles, compressed natural gas burning vehicles. This will help to guarantee no increase in air pollutants surrounding the airport.
- 5.) Finally, in colder climates, Glycol recovery or treatment systems is a must. Also, aircraft fuel storage tanks should be leak-proof and inspected at regular intervals annually. Thank you for your consideration of these recommendations.

Kenneth Hayes M.D.

KENNETH HAYES, M.D., DIRECTOR, CITIZENS AGAINST AIRPORT POLLUTION
1155 EMORY ST., SAN JOSE, CA 95126-1705

FAX: 408-295-6027 TELEPHONE: 408-295-3609

CC: LENORA PORCELLA, CHAIRPERSON, CITIZENS AGAINST AIRPORT POLLUTION
JACK SAVORITO, U.S. C.A.W.

Richard E. Mahr
30 West Hill Road
Colonia, NJ 07067-3811
Phone: 1-732-815-9851

November 12, 1997

Mr. James Littleton
Office of Environment and Energy (AEE-1)
Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, DC 20591

Subject: Public input for research agenda for: Environmental Research Beyond 2000 Project.

Dear Mr. Littleton;

The most important aviation issues for the residents of Colonia, NJ are:

1. Noise at night. People must be able to sleep. The health of people is being sacrificed for the profits of others. Stricter night curfews or even shutdowns should be considered when it comes to peoples health. Only stage IV aircraft if any, should be allowed to fly at late night and early morning hours beyond the year 2000.
2. Vibrations in houses. Height restrictions over Colonia, NJ, force helicopters to fly in the 500 foot range. This type of operation creates extremely severe vibrations in our homes and is causing structural damages. Walls are cracking, windows are breaking, nails are popping out, grout is cracking, even foundations have been cracked. Our roofs are developing leaks and motor and glazing are falling out. Current flight certification and sound measurement techniques utilize an A-weighted curve with a cutoff point of 44 hertz and below. This systems approximates how loud the noise seems to people's hearing, but does not represent how the houses and ground surrounding the houses responds to these low frequencies. Also, the houses are built with dimensions that repeat. Beams are located 16" apart, lumber is cut to the same dimension over and over again. This type of construction allows a structure to become resonant, tuned to the pitch of the rotor speed. Research is needed to better understand how the low frequency sounds interacts with ones house. A C-weighted, or no weighted scale (flat), should be utilized for vibration measurements. A resonance factor, should be determined for construction practices and incorporated into figures. Helicopter type, weight, loading characteristics, horsepower, rotor speeds, and height above a residence should be considered as well. The current system does not take into account the effects on structures. Local terrain such as hills, soil and rock characteristics may be contributing to local concentration (amplification), and transmission of these vibrations into ones house. Localized "hot spots" should be considered and helicopters kept away from these areas, or kept at much higher altitudes.

Jet rumbles also cause vibrations in the houses. Usually, the jet rumbles are not as powerful as the helicopters directly over, however they are more frequent. The jet rumbles and noise seems to affect the windows severely. The windows sing with vibration and the frames rattle. On occasion the glass has broken. The glazing in the window is cracking in a pattern. This distance between the cracks are uniform in distance. After the glazing cracks, the vibrations wiggle it loose and it falls out. If your windows are rattling, one must ask, what else is rattling? What is it doing to other areas of the house? Nobody has been able to tell me this.

3. Excessive SEL's. I have been, and know two other people who have been, injured by excessively loud jet noise. The symptoms are similar. Pain in the ears during a loud jet over flight. This is followed by a dull sensation in the ears that feels like cotton has been jammed in there. Which is followed by constant ringing that last for days to weeks. Which is accompanied with temporary and permanent hearing loss.

4. Excessive operations. During wind shifts, and peak periods, the same flight patterns are utilized for days. There is no break in the action. This constant noise is very stressful and leads to high blood pressure, aggravation, and total loss of concentration. At times is it debilitating.

5. Air quality. New Jersey has not been able to meet federal clean air standards. The automobile owners are forced to use oxygenated gasoline and tighter emission testing. Businesses are subject to tighter controls while the airports are exempt from compliance. The airports are allowed to increase their activity while everyone else shares the burden or tighter controls. The airports must bear their fair share of the air pollution they emit.

6. Water quality. Newark International and other airports are allowed to de-ice using glycol. This is allowed to spill onto runways, into the ground, and into storm sewers. This pollutant must not be allowed to spoil our drinking water and threaten our wildlife.

7. Hush kits. These devices do not offer the performance of a newly designed jet engine. You still have less powerful engines then with the new stage III aircraft. These Band-Aid fixes should be phased out as soon as possible. They should not be allowed between 10 P.M. and 7 A.M. beyond the year 2000.

Sincerely

Richard E. Mahr

-957

**METROPOLITAN WASHINGTON
GOVERNMENTS**

COUNCIL OF

199~

40 years of local governments working together for a better metropolitan region

November 17, 1997

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Mr. James R. Littleton
Federal Aviation Administration
Office of Environment and Energy
Washington, D.C. 20591

Dear Mr. Littleton:

I am writing to inform you of an issue which was discussed at a recent meeting of the Committee on Noise Abatement at National and Dufles Airports (CONANDA). During our November 12~n meeting, it was brought to my attention that the Federal Aviation Administration announced in the Federal Register that a Public Forum on Environmental Issues would be held November 20, 1997 in this region. It is also my understanding that the FAA is developing a research agenda called Environmental Research Beyond 2000. The purpose of the Public Forum is to obtain information from the public for developing and refining this agenda.

As I understand, on April 17,1995, then FAA Administrator Hinson signed a

Community Involvement Policy Statement. The Administrator stated that through community involvement, FAA would broaden its information base and thereby improve decision making. To that end, over the past year, CONANDA has been discussing with the FAA officials what role it might play in implementing a public involvement process in the Washington area. However, we received the information on your planned public forum from one of my constituents, who received it by e-mail from a Chicago area citizen. The manner in which we were informed of this public forum is very disturbing in view of FAA's new public outreach policy for community input.

The Federal Register is the mechanism you have chosen to inform the public and hence solicit their input. Unfortunately, informing the community through the federal register when other means of communication are abundant in the Washington area is inexcusable. This is not the way to solicit meaningful community involvement. Since we were not informed of this November 20 meeting, this raises serious questions about the public involvement process recently implemented by FAA. How can you want to hold a community listening session on policy and not let the community know?

CONANDA has been in existence since 1985 and has worked with the Congress, the Metropolitan Washington Airports Authority, Federal Aviation Administration, and the local governments of the Washington area to identify noise mitigation strategies for implementation at the two airports. One of the purposes of CONANDA is to facilitate communication between federal and state agencies and the regional community concerning airport noise issues. This situation benefits you, the federal agency responsible for airport noise policy. However, we are unable to be effective and support your efforts if you are not

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aWe to provide to us information like that posted in the Federal Register for the November 20 meeting. It is almost impossible to monitor the Federal Register for FAA notices every day. We find it is a more efficient use of staff and of our time to be communicating with the community and with the region's agencies addressing airport issues.

As an elected official and Chair of CONANDA, I wo~d urge and the Washington region would appreciate it if you could ensure CONANDA is on your list to receive the type of information which was printed in the Federal Register for future notices of significant public meetings. This information should be addressed to: George L. Nichols, Metropolitan Washington Council of Governments, 777 North Capitol Street, NE, Suite 300, Washington, D.C. 20002.

If you have any further questions or would like to discuss this matter, please feel free to contact me at (301) 217-6617 or Mr. Nichols at (202)962-3355. Thank you in advance for your consideration in this matter.

Sincerely

Betty Ann Krahne
Chair, Com~mittee on Noise Abatement at National and Dulles Airports
Member, Montgomery County Council

cc: A. Bradley Mims Arlene Feldman